

**Draft Summary of the Engineering and Operations Work Group Meeting  
Oroville Facilities Relicensing (FERC Project No. 2100)  
April 25, 2003**

The Department of Water Resources (DWR) hosted the Engineering and Operations Work Group (E&OWG) meeting on April 25, 2003 at the Oroville Field Division.

A summary of the discussions, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present an informational summary for interested parties who could not attend the meeting. The following attachments are provided with this summary:

- Attachment 1 Meeting Agenda
- Attachment 2 Meeting Attendees
- Attachment 3 HYDROPS Presentation
- Attachment 4 Flow-Stage Modeling Presentation
- Attachment 5 Potential Model Scenarios

### **Introduction**

Attendees were welcomed to the E&OWG meeting. The meeting agenda and desired outcomes were reviewed. The meeting agenda and list of meeting attendees and their affiliations are appended to this summary as Attachments 1 and 2, respectively.

### **March 28, 2003 Meeting Summary and Action Items**

A summary of the March 28, 2003 E&OWG is posted on the relicensing web site. The Facilitator reviewed the status of action items from that meeting as follows:

- |                          |   |
|--------------------------|---|
| <b>Action Item EO#68</b> | Provide proposed model run scenarios for review and discussion.   |
| <b>Responsible:</b>      | DWR   |
| <b>Status:</b>           | This action item is the subject of a later agenda item. See discussion below.   |
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| <b>Action Item EO#69</b> | Clarify Standard Project Flood (SPF) modeling effort.   |
| <b>Responsible:</b>      | DWR   |
| <b>Status:</b>           | Rashid Ahmad, Engineering Resource Area Manager for DWR confirmed that the SPF would not be updated as a part of the relicensing effort. The Corps prepared inundation maps and evaluated floods of different frequency for FEMA. Rashid reported that this would be part of SP-E4. |
|                          |   |
| <b>Action Item EO#70</b> | Provide progress reports on HYDROPS and Flow-Stage Model Development to E&O Work Group for review.  |
| <b>Responsible:</b>      | DWR   |
| <b>Status:</b>           | This action item is the subject of a later agenda item. See discussion below.   |
|                          |   |
| <b>Action Item EO#71</b> | Clarify if Flow-Stage model data set can be released to public.   |
| <b>Responsible:</b>      | DWR   |
| <b>Status:</b>           | The data set can be released to anyone that requests it. The file is too large to post on the Web site.   |
|                          |   |
| <b>Action Item EO#72</b> | Provide Resource Action Identification Form to participants and review process for submittal of forms.  |
| <b>Responsible:</b>      | DWR   |
| <b>Status:</b>           | The Facilitator explained that originally resource actions were not expected from the E&OWG but there may be some proposals that are appropriately  |

discussed in this Work Group. She described the process developed by the Plenary Group and explained the use of the Resource Action Identification Form as a means to submit proposed resource actions either directly to a Work Group or to Rick Ramirez, DWR Program Manager so that he can forward it to the appropriate Work Group. She also explained that the Resource Action Identification Form could also be developed within the Work Group. The Plenary Group has identified two target dates for form submittal although the facilitator stressed that the dates, April 7 and June 16, were not deadlines and that forms will be accepted after those dates. Forms may be submitted with incomplete information particularly if information is expected from studies, but the more detail provided, the better the Work Groups will be able to evaluate the proposals. Some proposals may not be recommended by the Work Groups but may still be considered during settlement negotiations. The participants discussed the need for coordination with other Work Groups so that ideas are not developed in isolation. Curtis Creel will be attending the Environmental and the Recreation and Socioeconomics Work Group meetings to provide modeling coordination and project operations expertise.

### **Hydrops Discussion**

Yung-Hsin Sun with the consulting team provided participants with an update on the development of the local operations model or 'HYDROPS' using a PowerPoint presentation (Attachment 3). He reviewed the need for the model and discussed the requirements and development process. Please refer to Attachment 3 for details. Lori Brown with DWR added that HYDROPS would be discussed at the modeling workshop currently scheduled for June 24, 2003. She noted a second modeling workshop is in the planning stages and asked participants to block out the week of August 11-15 for an extensive session to review results of early runs and discuss future run scenarios.

### **Flow-Stage Modeling Update**

Eric Clyde with the consulting team described the flow-stage model using a PowerPoint presentation (see Attachment 4). Beginning with the Corp of Engineers' Comprehensive Study 1997 and 1998 data sets, they have updated the physical structures such as bridges, checked the assumptions, and calibrated the model using DWR gages at 2,000, 4,000, 6,000, and 10,000-cfs flows.

Eric explained that nine locations were used to validate the runs, calibrate and modify the model; he also provided cross-section samples and curves for review and discussion. Ken Kules with Metropolitan Water District questioned the accuracy of predicting flows between the few gages used and suggested Eric coordinate with the Environmental Work Group PHABSIM study efforts underway by Tom Payne with the consulting team where pulse flows were sent down the low flow channel and flow data collected at numerous transects. He was also concerned about the lack of hydrology data to account for inflows and outflows such as the Oroville sewer outfall into the low flow channel. Stuart Edell representing Butte County offered to assist in obtaining the sewer outfall data (SCOR) as input.

Participants briefly discussed the temperature model and Carl Chen answered questions related to the model. Carl noted the importance of including any available temperature data for inflows such as SCOR or inflow from Kelly Ridge or Oroville Wyandotte Irrigation District. Ken Kules suggested Carl coordinate with David Olson with the consulting team who is the Study Lead for several environmental studies, including SP-F10, Task 1E that include the collection of water temperature data in pools and riffles. Carl noted that the specific pool/riffle temperature data might not be captured in the temperature model.

### **Proposed Bookend Model Runs**

Art Hinojosa distributed and discussed a document titled 'Potential Model Scenarios' (see Attachment 5). Ken Kules suggested that the temperature scenarios outlined are not really bookends but rather sensitivity studies to determine how sensitive the system is to perturbations of selected variables within the system. He questioned the need to do any downstream flood protection runs and suggested that DWR first check with the Army Corps of Engineers to see what types of modeling they have already done on the Feather River. He also noted that if this is in response to an issue raised by Yuba City, then the collaborative should wait for a proposed resource action that sets an objective before determining if a model run is needed. Lori responded that these run scenarios are draft and since Yuba City is not represented at this meeting, perhaps this discussion could be continued during the next E&OWG meeting. The participants agreed to continue this discussion when the participants most interested in downstream flood protection were at the table.

### **Next Steps**

The participants discussed the need for a May E&OWG meeting and decided that since the meeting is currently scheduled for the Friday before Memorial Day weekend, and the action items from this meeting would likely require little if any discussion, an e-mail update in place of the May meeting would be sufficient. However, it was subsequently decided to host a meeting on May 30, 2003. as follows:

Date: May 30, 2003  
Time: 9:00 a.m. – 12:15 p.m.  
Location: Oroville Field Division, 460 Glen Drive

The June meeting date will follow closely behind the Modeling Workshop date and could provide the opportunity to discuss results of the workshop and develop next steps for the E&OWG. The participants agreed to meet:

Date: June 27, 2003  
Time: 10:00am – 2:00 pm  
Location: To be determined

### **Action Items**

The following action items were identified by the Engineering and Operations Work Group and includes a description of the action, the participant responsible for the action, and due date.

**Action Item EO#73:** Obtain SCOR and OWID discharge data for input into modeling (flow-stage and temperature).

**Responsible:** DWR/Butte County  
**Due Date:** May 23, 2003

**Action Item EO#74:** Ask Dave Olson (SWRI) to contact Carl Chen (Systec) regarding temperature data used to develop SPF10, Task 1E.

**Responsible:** DWR  
**Due Date:** May 23, 2003

**Action Item EO#75:** Confirm the need to run downstream flood protection model scenarios and confirm what the Corps has already done first.

**Responsible:** DWR  
**Due Date:** May 30, 2003